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ABSTRACT

The Anthropology Curriculum Project (ACP) of the University of Georgia for the period 1964-65 is evaluated. The report is presented in three sections. Section I discusses the project hypothesis that pupil achievement would not differ according to the level of teacher training in anthropology. The experimental group consisted of 12 first-grade classes (355 pupils) and 13 fourth-grade classes (374 pupils) that were taught by teachers with no special anthropology training. Section II describes test tabulations, corrections, and analyses. Section III presents conclusions and recommendations. The following conclusions are offered: (1) anthropology can successfully be taught in grades 1 and 4; (2) anthropology was not included in elementary social studies; (3) some teacher characteristics affect student achievement; (4) specially prepared achievement tests are necessary; and (5) student achievement differs between grades. It is recommended that curriculum evaluation be continued with revised test instruments and that curriculum development be continued for inclusion of anthropological subject matter content in the elementary social studies program. (Author/DB)

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EVALUATION OF THE ANTHROPOLOGY CURRICULUM PROJECT FOR GRADES ONE AND FOUR AS MEASURED BY SELECTED AND PREPARED TESTING INSTRUMENTS

by

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Anthropology (Elementary) Panel
National Council of Social Studies
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BY

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The Anthropology Curriculum Project is a five-year program underway at the University of Georgia pursuant to a contract with the U. S. Office of Education, Department of Health, Education, and Welfare, under the provision of the Cooperative Research Program. The evaluation of the project for the school year 1964-65 and dealing with Grades One and Four is herein reported.

I. HYPOTHESES AND RESEARCH DESIGN

Since it is unlikely that many elementary teachers will have had instruction in anthropology, and since there are no published materials prepared for systematic school use in this discipline, the usability of the instructional material, independent of the level of teacher preparation, is important. Therefore, as stated in the initial proposal for the project, the basic null hypothesis in this evaluation is that there is no statistically significant difference in pupil achievement in anthropology as measured by specially prepared achievement tests related to the level of teacher training in anthropology. A related null hypothesis would be that there is no statistically significant difference in pupil achievement in social studies as measured by standardized tests of social studies related to the training of teachers in anthropology. Further sub-hypotheses explored in this study are that there are no statistically significant differences in pupil achievement in anthropology under teachers trained in anthropology due to the teacher's level of certification, years of teaching experience, age, and race. Control variables for these sub-hypotheses were pre-tests in anthropology and the Social Studies Battery, Level 4, of the Sequential Tests of Educational Progress.

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The experimental group used in the study was composed of 12 first-grade classes (355 pupils) and 13 fourth-grade classes (374 pupils) taught by teachers who did not receive the special training.

Since no published tests in anthropology are available, specially prepared achievement tests were constructed for the first grade, Forms 1A and 1B, and for the fourth grade, Forms 4A and 4B. The STEP Social Studies Battery, Forms 4A and 4B, were also used in the fourth-grade classes.

Statistical analyses of the test results include analyses of variance and co-variance (by a least squares approach), product-moment correlation, and tests of the significance of differences between means.

II. RESULTS OF ANALYSES

The data recorded from test results were tabulated and corrected for difficulty to equate the gains made, regardless of the form used for pre-testing at each grade level. This correction factor was based on the assumption that the sample size was adequate to provide a normal distribution of gains on either form. Tests of significance between the means of the pre- and post-test scores on the Anthropology Achievement Tests in both Grades One and Four were significant at the .01 level. The difference between pre- and post-test means on the STEP Social Studies Battery was not significant.

The product-moment correlation of gains made in anthropology test scores with gains made in the STEP scores and the correlation of gains made in anthropology test scores with STEP post-test scores were found to be significant at the .01 level. Other correlations, i.e., teacher grades in anthropology with pupil gains, teacher experience with pupil gains, and teacher age with pupil gains, were not significant.

Analyses of variance on anthropology post-test scores for Form 1A showed no significance for the variance controlled by the pre-test, but an .01 level of significance for the variance due to group (experimental or control), level of certification, years of experience, and race. The age of the teacher was significant at the .05 level. On the anthropology post-test scores on Form 1B, the variance controlled by the pre-test scores was significant at the .01 level, with only the level of certification contributing variance significant at the .01 level.

On anthropology post-test scores for Form 4A, analyses of variance revealed non-significance of the anthropology pre-test scores, but an .01 level of significance for the STEP pre-test as a controling factor. Other sources of variance, significant at the .01 level, were the teacher's group, level of certification, and age. On the anthropology post-test scores for Form 4B, the variance due to anthropology pre-testing was again non-significant, while the variance controlled by the STEP pre-test was significant at the .01 level. Other significant sources of variance were the teacher's group (.01 level) and race (.05 level). On the STEP post-tests, the variance controlled by pre-testing was significant at the .01 level for both Form 4A and Form 4B. An .01 level of significance on the STEP Form 4A for variance due to race may well be due to erroneous testing procedures. No other sources of variation were significant in the analyses of the STEP.

The Anthropology Achievement Tests will be revised on the basis of item analysis of the test results. The present tests yielded reliability coefficients (Kuder-Richardson Formula 20) of .79, .72, .80, and .84 for Anthropology Test Forms 1A, 1B, 4A, and 4B, respectively.

III. CONCLUSIONS AND RECOMMENDATIONS

On the strength of the foregoing analyses, the following conclusions seem warranted:

1. The subject matter of anthropology, as presented in this curriculum, can be taught at grade levels one and four, as revealed by the significance of the gains made in pupil scores on the Anthropology Achievement Tests.

2. The non-significance of the gains made in scores on the STEP Social Studies Battery evidences the lack of anthropological subject matter content in the existing social studies curricula. However, those pupils scoring high in social studies tended to show the highest gains in anthropology.

3. While correlations between pupil gains in anthropology and such factors as the teacher's grade in anthropology, teaching experience, and age, were not significant, the least squares analysis of post-test scores revealed as significant sources of variance such factors as the teacher's group (experimental or control), level of certification, experience, age, and race for Grade One, and such factors as the teacher's group, level of certification, age, and race for Grade Four.

4. The STEP pre-test gives much better control of variance at Grade Four than does the present anthropology pre-test.

5. In item analysis, the gains in percentages answering test items correctly in Grade One tended to definitely favor the experimental group, i.e., those taught by teachers having training in anthropology. The lesser differentiation between the groups in Grade Four could possibly be explained by the inclusion of pupil texts in the curriculum materials.

The recommendations to be offered as a result of this preliminary evaluation are: 1) continuation of the curriculum evaluation with revision of the testing instruments based on item analyses and indices of discrimination for upper-lower half responses to the options offered, 2) that the curriculum development be continued for inclusion of anthropological subject matter content in the elementary social studies program. Since the group, i.e., experimental or control, accounts for the highest significant source of variance, it is recommended that this be studied more in detail with emphasis placed on the development of an anthropology pre-test that will provide better control of other sources of variance.